Phy32

Self-regulated Constraint-induced Movement Therapy Programme for People With Sub-acute Stroke

T Leung[1], KPY Liu[2], C Sum[1], V Mok[3], C Lum[3]
[1]Occupational Therapy Department, Shatin Hospital; [2]Department of Rehabilitation Sciences, The Hong Kong Polytechnic University; [3]Department of Medicine and Therapeutics, The Chinese University of Hong Kong, Hong Kong SAR, China.

Background: Self-regulation is shown to promote active learning and monitoring of own performance. Constraint-induced movement therapy has been proved to induce cortical reorganization for people with stroke. This study investigated the effectiveness of a self-regulated constraint-induced movement therapy programme (SR + CIMT) to people with sub-acute stroke using a randomized control trial. **Methods:** Up to now, nine subjects were recruited in the SR + CIMT and six in the OT + CIMT. All programmes have duration of 2 weeks for 5 times a week. Data on upper limb motor functions and daily task performance were recorded before and after the programmes, and at 2-month follow-up time. **Results:** Subjects had a mean age of 61.67 (SD = 11.69). Reviewing the raw data showed that there was better improvement in all measures in the SR + CIMT group than the OT + CIMT group. Repeated measure ANOVA showed that the group receiving SR + CIMT had better significant improvement in the upper limb function of the Fugl Meyer Assessment (FMA) ($F = 3.45$, $p < .05$), but not for the Action Research Arm Test (ARAT). No significant difference was found in the subjective report using the Motor Activity Log MAL and the Lawton Instrumental Activities of Daily Living scale. **Conclusion:** CIMT has been shown to be a useful method in improving function for people after stroke. Evidence also shows the advantage of using self-regulation as a strategy to understand and deal with own problems. The results of this study suggest a trend of better improvement in the SR + CIMT group. However, more data would be required to provide the evidence.

Phy33

Functional Efficiency and Time Trend Pattern Analysis for In-patient Stroke Rehabilitation

AKW Soo, BKM Au, SKM Wong
Occupational Therapy Department, Tai Po Hospital, Hong Kong SAR, China.

Background: Efficiency pattern analysis (EPA) is a technique that links patients' functional gain to resource use, as reflected by length of stay (LOS). Functional Independence Measure (FIM) is used to adjust for severity and to define different efficiency groups. **Methods:** This study evaluated the relationship between disease severity and patterns of functional gain as well as LOS for patients who undergone stroke rehabilitation. It is retrospective and exploratory in nature. Patients who completed stroke rehabilitation programme from year 2005 to year 2007 were recruited. Measurements included demographics, functional gain and LOS. **Results:** Total 1,818 stroke patients were eligible for the study. Mean age was 73.61, mean LOS was 24.33 and mean total FIM gain was 9.63. Five efficiency groups were formulated. A decreasing trend of LOS was noted across time. A significant shorter LOS was noted in year 2006 (22.19 days) and year 2007 (21.42 days) when compared with year 2005 (29.58 days) ($p < .05$). From year 2005 to year 2007, more patients shifted to higher efficiency group with characteristics of higher functional gain and shorter LOS. **Conclusion:** EPA provides a means to evaluate treatment efficiencies across time. From time trend pattern analysis, more patients shifted into higher efficiency group could suggest that rehabilitation services have responded to cost containment pressure by achieving increase efficiency. Changes in the system of care can take the form of enhanced treatment technique, technical innovations and procedural modification. Result of this study also contributes as a conceptual framework for future application on "pay for performance" model.

Phy34

Improving Quality of Life of Patients With Cardiac Problems Through Health Qigong Programme

A Poon[1], M Wan[1], L Ma[1], P Hui[1], E Po[1], CS Yue[2], B Cheung[3], WY Chu[3]
[1]Occupational Therapy Department, [2]Medical and Geriatric Department, Cardiac Division, and [3]Health Resource Centre, United Christian Hospital, Hong Kong SAR, China.

Background: Health qigong practice had been incorporated in our cardiac rehabilitation programme phase II since 2000 with proven effects. However, the maintenance effects after the programme is still doubtful. The present study aimed at evaluating the physiological and psychosocial effect of this 12-week health qigong (Badunjin) programme on cardiac patients. The maintenance effect of the programme was also evaluated at post-discharge 12-week from the programme. **Methods:** A sample of 57 (39 male and 18 female) subjects was recruited. Thirty-one were allocated to the experimental group with 12-week health qigong programme (employing lay leaders and emphasis on self-management principles) and 26 to the control group with no active treatment provided. **Results:** Repeated measure of ANOVA revealed that there was reduced heart rate (HR) of patients in the experimental group ($p = .001$) with overt improvement in diastolic blood pressure (DBP) and systolic blood pressure (SBP) while patients in the control group showed increase in HR, DBP and SBP. C-SF36 results also indicated that there was general improvement in psychosocial functioning and quality of life in the experimental group. Three patients were readmitted due to cardiac problems in the control group but none in the experimental group. Positive feedback from participants showed that they were more active in daily life with enhanced confidence and self-efficacy in coping with their cardiac problems and dealing with their daily lives. **Conclusion:** The 12-week health qigong (Badunjin) programme was effective not only in improving the quality of life of patients with cardiac problems but their self-efficacy, coping strategies and lifestyle as well. Through the use of culturally relevant health qigong treatment modality, recruitment and training of lay leaders, impacts of group effects and multi-disciplinary collaboration, the programme can be considered as a cost-effective intervention to facilitate active lifestyle engagement and long-term community reintegration with possible reduction in the avoidable re-admissions due to cardiac problems.

Phy36

An Occupational Therapy Pilot Programme for Healthy Elderly Japanese at a University With Multi-disciplinary Collaboration

H Nakamura-Thomas, T Kubota, Y Ozawa, O Motoi
Saitama Prefectural University, Koshigaya City, Saitama Prefecture, Japan.

Background: Empowering elderly people has become very important in Japan. The authors established a new programme in 2009 which provides lectures and workshops through multi-disciplinary collaboration. **Methods:** Participants were recruited using flyers. The programme had five lecture and workshop sessions: (a) primary prevention, (b) aging, (c) physical obstacles and fall prevention, (d) a physical obstacles workshop and (e) a workshop titled "I'm proud of my community". Each session was held once a month at the university. Data was collected during pre and post the set of programme with the SF36, Occupational Questionnaire (OQ) and through physical examinations of grip ability, walking speed and one-leg standing ability. Data from the pre and post evaluations was compared with a *t* test and this research protocol was reviewed at the university. **Results:** Participants were 19 retired people who were living with family members in an urban area. The average age was 69.2 years old (SD = 5.1). Significant differences were not shown in the data from physical examinations and the OQ between pre and post evaluations. Overall data from the SF36 was above average for Japanese; however, bodily pain and role/physical categories declined and a correlation were shown between those two categories. **Conclusion:** Japanese are encouraged to exercise as a national trend and participants tended to exercise harder; so it was suggested that they had to obtain knowledge and strategies to deal with bodily pain to maintain their health status. Thus, controlling bodily pain will be a new subject introduced in the 2010 programme.